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S. Zimmerman
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Michael J. Sullivan
For : **IMPROVED MULTI-LAYER GOLF BALL**
Serial No. : 08/926,246
Filed : September 5, 1997
Group Art Unit : 3711
Examiner : M. Graham
Last Office Action : February 28, 2003
Confirmation No. : 6680
Attorney Docket No. : P3724-F1-C1
(SLDZ 200035-1-2-2)

Cleveland, Ohio 44114-2518
May 21, 2003

**COMMUNICATION AND TRANSMITTAL OF
RULE 37 C.F.R. § 1.192 APPELLANTS' BRIEF**

Mail Stop Appeal Brief – Patents
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Dear Sir:

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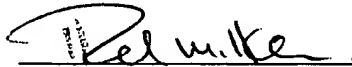
By: Mary Ann Temesvari
Mary Ann Temesvari

Applicants hereby petition the Commissioner under 37 C.F.R. §1.136(a) and request a one-month extension of time up to and including at least June 4, 2003 to respond to the outstanding Notice of Appeal. Fees in the amount of \$110.00 are included in our attached check.

The Commissioner is authorized to charge any additional fees, or refund any overpayment to Deposit Account No. 06-0308.

Respectfully Submitted,

FAY, SHARPE, FAGAN,
MINNICH & McKEE, LLP

A handwritten signature in black ink, appearing to read "R. M. Klein", is written over a horizontal line.

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Appeal Brief
S. Zimmerman

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF : Michael J. Sullivan
FOR : **IMPROVED MULTI-LAYER GOLF BALL**
SERIAL NO. : 08/926,246
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May 16, 2003

APPEAL BRIEF UNDER 37 C.F.R. 1.192

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Dear Sir:

This Appeal Brief is in furtherance of the Notice of Appeal that was filed with the U.S. Patent and Trademark Office on March 4, 2003.

The fees required under 37 C.F.R. § 1.17 and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying Transmittal of Appeal Brief.

CERTIFICATE OF MAILING

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Mary Ann Temesvari
Mary Ann Temesvari

Appellant herewith presents an Appeal Brief in connection with the above-identified application wherein claims 1-8 were finally rejected in the FINAL Office Action of November 4, 2002. What follows is Appellant's Appeal Brief (submitted in triplicate) in accordance with 37 C.F.R. § 1.192(a).

I. Real Party in Interest (37 C.F.R. § 1.192(c)(1))

The real parties in interest in this appeal are the inventor named in the caption of this brief (Michael J. Sullivan) and the assignee, Spalding Sports Worldwide, Inc. (formerly Lisco, Inc.).

II. Related Appeals and Interferences (37 C.F.R. § 1.192(c)(2))

This application was previously before the Board of Patent Appeals and Interferences concerning a previous rejection of claims 1-8 (the same claims that are at issue in the present appeal) for an alleged lack of written description support under 35 U.S.C. § 112, first paragraph. In that earlier appeal, the Board reversed the Examiner and remanded the application for further consideration. In this regard, the Board indicated that "each specific limitation which the examiner has found to lack proper support in the originally filed specification appears to find proper support in the originally filed claims which are part of the originally filed specification."

Currently, it is believed that there are no other applications involved in an appeal or interference before the U.S. Patent and Trademark Office from which the present application bases its priority, or any cases which base their priority upon the present application, that will directly affect, or will be directly affected by, or will have a bearing on the Board's decision in this appeal.

III. Status of Claims (37 C.F.R. § 1.192(c)(3))

The status of the claims set forth after the FINAL Office Action mailed November 4, 2002, and an Advisory Action mailed February 28, 2003, was, and is, as follows:

Allowed:	none
Rejected claims:	1-8

IV. Status of the Amendments (37 C.F.R. § 1.192(c)(4))

At present, claims 1-8 stand rejected under 35 U.S.C. § 112 for alleged lack of enablement and under § 102 for purportedly being anticipated by EP 633,043 to Higuchi.

V. Summary of the Invention (37 C.F.R. § 1.192(c)(5))

The present invention is directed to three piece solid golf balls having a center core (page 10, line 17), an intermediate layer (page 10, lines 18-19; page 42, lines 15-19), and a cover layer enclosing the core and the intermediate layer (page 10, line 19; page 43, lines 23-24). The center core has a diameter of at least 29 mm (1.1417 inches) (page 35, lines 12-14) and a specific gravity of less than 1.4 (page 39, lines 10-12).

The intermediate layer has a thickness of at least 1 mm (0.03937 inches) (page 36, lines 5-7), a specific gravity of less than 1.2 (Sample E of Table 7 on pages 41-42), and a hardness of at least 85 on JIS C (Shore C) scale (page 42, line 7). The specific gravity of the intermediate layer is less than the specific gravity of the core.

The cover layer has a thickness of 1 to 3 mm (0.03937 to 0.1182 inches) (p. 36, lines 7-9) and is softer than the intermediate layer.

Accordingly, the present invention is directed to a multi-layered golf ball comprising a core, a hard intermediate layer and a soft outer cover layer. The multi-layered ball provides for enhanced distance without sacrificing playability or durability. The combination of the inner and outer cover layers provides a golf ball exhibiting enhanced resilience and durability while maintaining and/or improving the playability properties.

VI. Issues (37 C.F.R. § 1.192(c)(6))

Concerning the rejection under § 112, the issue is whether one skilled in the relevant art could practice the subject matter of claims 1-8 without undue experimentation.

Concerning the issue under § 102, the issue is whether EP 633,043 to Higuchi properly anticipates claims 1-8.

VII. Grouping of Claims (37 C.F.R. § 1.192(c)(7))

No two or more of the claims at issue, i.e. claims 1-8, stand or fall together. That is, each claim separately recites patentable subject matter. This is explained in detail below.

VIII. Arguments (37 C.F.R. § 1.192(c)(8))

In the final Office Action mailed November 4, 2002, claims 1-8 were rejected under § 112, first paragraph for alleged lack of enablement. Claims 1-8 were also rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by EP 633,043 to Higuchi. In making these rejections, the Examiner also denied Appellant's request for an interference with U.S. Patent 5,553,852 to Higuchi.

In view of the following reasons set forth herein, it is respectfully submitted that all claims 1-8 are in condition for allowance.

I. Rejection of Claims 1-8 Under § 112, First Paragraph Must Be Reversed

In support of this ground of rejection, the Examiner asserted:

Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The 08/070,510 application from which applicant claims priority for the claimed subject matter does not enable the claimed subject matter.

Each of the following has been identified by the examiner as non-enabled subject matter:

1. In claim 1, the lower limit on the core diameter (29 mm), the upper limit on the core specific gravity (1.4), the lower limit of the intermediate layer thickness (1 mm), the upper limit of the specific gravity of the intermediate layer (1.2), the lower limit of the hardness of the intermediate layer (85 on JIS C), and the upper limit of the thickness range of the cover being claimed (3 mm) are not enabled.

As an example the upper limit on the thickness range of the originally disclosed cover was 1.27 mm.

2. In claim 3, there is no basis provided for the applicant's reasoning that the now claimed hardness range of the cores and covers was inherent in the original disclosure. Without a basis in the original disclosure the now claimed ranges must be considered non-enabled.

3. In claim 5, the lower limit of the diameter of the center core being claimed (29 mm) was not disclosed in the original disclosure. The lower limit originally disclosed was 35.052 mm.

4. In claim 6, neither the upper or lower limit of the claimed difference in the specific gravity (.5 - .1) was disclosed in the original disclosure. By applicant's admission the limits of the difference disclosed were (.234 - .164).

5. In claim 7, neither the upper limit (1.0) nor the lower limit (.9) were disclosed in the original disclosure. While values within that range were disclosed they do not make inherent the upper and lower bounds of the claimed range.

6. In claim 8, neither the upper limit (100) nor the lower limit (85) were disclosed in the original disclosure. While values within that range were disclosed they do not make inherent the upper and lower bounds of the claimed range.

Claims 1-8 of this application have been copied by the applicant from U.S. Patent No. 5,553,852. These claims are not patentable to the applicant because they are not enabled under 35 U.S.C. 112 1st paragraph.

An interference cannot be initiated since a prerequisite for interference under 37 CFR 1.606 is that the claim be patentable to the applicant subject to a judgment in the interference.

Pages 2-3 of the November 4, 2002 Action.

The Examiner's rejection of claims 1-8 under § 112 for alleged lack of enablement, must be withdrawn. As explained below, the Examiner is not applying the correct standard for determining whether the claims at issue are sufficiently enabled by the present specification under § 112. Upon application of the correct standard, it is respectfully submitted that the Board will agree that the present specification satisfies the enablement requirement of § 112.

A. The Proper Standard for Enablement

The enablement requirement of 35 U.S.C. §112, first paragraph requires that the specification describe the invention such that one skilled in the art is able to make and use the claimed invention as it is claimed. *In re Cortright*, 49 USPQ2d 1464 (Fed. Cir. 1999). The statute has been interpreted to require that the "specification adequately disclose[s] to one skilled in the art how to make...or carry out, the claimed invention without undue experimentation." *Process Control Corp. v. Hydrex Corp.*, 52 USPQ2d 1029 (Fed. Cir. 1999). Thus, the test of enablement is not whether experimentation is necessary, but whether such experimentation is unduly extensive. *National Recovery Technologies, Inc. v. Magnetic Separation Systems, Inc.*, 49 USPQ2d 1671 (Fed. Cir. 1999). "The test for undue experimentation is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction of how to practice a desired embodiment of the claimed invention." *Johns Hopkins University v. Cellpro Inc.*, 47 USPQ2d 1705 (Fed. Cir. 1998).

In *In re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988), the Court advanced the following nonexclusive factors for determining whether a disclosure satisfies the enablement requirement and whether any experimentation is "undue".

1. The breadth of the claims;
2. The nature of the invention;
3. The state of the prior art;
4. The level of one of ordinary skill;
5. The level of predictability in the art;
6. The amount of direction provided by the inventor;
7. The existence of working examples; and
8. The quantity of experimentation needed to make or use the invention based on the content of the disclosure

The enablement requirement is met if the description enables any mode of making and using the invention. *Johns Hopkins*, supra.

Some cases have made a distinction between mechanical and chemical cases, requiring the disclosure of more examples in chemical cases. *In re Fisher*, 166 USPQ 18, 24 (CCPA 1970). However, such a black and white distinction seems improper. "We are unaware of any distinction in law as to enablement or description requirements...based on whether the subject matter is chemical or nonchemical." *Ex Parte DesOrmeaux*, 25 USPQ2d 2040, 2043 (Bd. Pat. App. & Int'l 1992). More accurately, the amount of disclosure needed to enable the invention is inversely related to the knowledge in the state of the art as well as the predictability in the art. See *In re Cook*, 169 USPQ 298, 300 (CCPA 1971), where the Court stressed that a distinction should be made "between predictable and unpredictable factors in any art rather than between 'mechanical cases' and 'chemical cases'". Thus, "[W]here...a claimed genus represents a diverse and relatively poorly understood group of microorganisms, the required level of disclosure will be greater than, for example, the disclosure of an invention involving a 'predictable' factor." *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991).

When rejecting a claim for lack of enablement, the PTO bears the initial burden of setting forth a reasonable basis as to why the scope of the claims is not enabled by the specification. *In re Wright*, 27 USPQ2d 1510 (Fed. Cir. 1993). In making such a rejection, the PTO must identify what information is missing and supply specific technical reasons why one skilled in the art could not supply this information without undue experimentation. MPEP, §2164.04 (8th ed.). "In examining a patent application, the PTO is required to assume that the specification complies with the enablement provision of Section 112 unless it has 'acceptable evidence or reasoning' to suggest otherwise...[T]he PTO thus must provide reasons

supported by the record as a whole why the specification is nonenabling...[T]hen and only then does the burden shift to the applicant to show that one of ordinary skill in the art could have practiced the claimed invention without undue experimentation." *Gould v. Mossinghoff*, 229 USPQ 1, 13-14 (D. D.C. 1985), *aff'd in part, vacated in part, and remanded sub nom, Gould v. Quigg*, 3 USPQ2d 1302 (Fed. Cir. 1987).

B. Application of the Proper Standard to Claims 1-8 and Why Rejection Must Be Reversed

Claims 1-8 relate to a three piece solid golf ball comprising a center core, an intermediate layer, and a cover enclosing the core through the intermediate layer. The core has a diameter of at least 29 mm (1.1417 inches). The core also has a specific gravity of less than 1.4. The intermediate layer has a thickness of at least 1 mm (0.03937 inches). The intermediate layer has a specific gravity of less than 1.2 and a hardness of at least 85 on the JIS C (Shore C) scale. The specific gravity of the intermediate layer is lower than the specific gravity of the core. The cover has a thickness of 1 to 3 mm (0.03937 to 0.1182 inches). The cover is softer than the intermediate layer.

Claim 2 requires that the intermediate layer is formed of a high repulsion ionomer resin base composition.

Claim 3 requires that the center core has a hardness of 45 to 80 on the JIS C scale. Claim 3 further requires that the cover has a hardness of 50 to 85 on the JIS C scale.

Claim 4 recites that the core is comprised of a polybutadiene base rubber composition.

Claim 5 calls for the inner diameter of the center core to be in the range of 29-37 mm.

Claim 6 requires that the difference in the specific gravity between the center core and the intermediate layer is in the range of 0.1 to 0.5.

Claim 7 recites that the specific gravity of the intermediate layer is in the range of 0.9 to 1.0.

Finally, claim 8 requires that the hardness of the intermediate layer is in the range of 85-100 on the JIS C scale.

1. Claim 1

The Examiner rejected claim 1 and argued that it recites subject matter not sufficiently enabled by the specification. Each feature argued by the Examiner as not enabled is separately addressed as follows.

a. Core Diameter of at Least 29 mm

First, the claimed feature of the center core having a diameter of at least 29 mm can be found on page 35, lines 12-14, where the *preferred* core has a diameter of about 1.545 inches (i.e. 39.243 mm). Furthermore, a range of core diameters of about 1.495 to about 1.575 inches (37.97 to 40.01 mm) is also disclosed at the noted page. Appellant respectfully submits that the specification does not have to explicitly disclose each and every core diameter in the claimed range so long as the claimed core diameter range may be achieved without undue experimentation.

Applying the *Wands* factors, it is clear that the present specification satisfies the enablement requirement with regard to producing a core diameter of at least 29 mm. The prior art includes extensive teachings of producing, such as by molding, different sized golf ball cores. Furthermore, it is well within the capabilities and expertise of one skilled in this field of art to manufacture a core having a specified diameter. Moreover, there is a relatively high degree of predictability involved in forming a golf ball core to a specific diameter. It is respectfully urged that the amount of experimentation needed to obtain a diameter of 29 mm or more when producing a core is not undue. And, it is further submitted that it would not involve undue experimentation to produce a core having a larger diameter.

b. Core Having a Specific Gravity of 1.4 or Less

Second, the specific gravity of the core of less than 1.4 can be found in the example on page 39, which shows the diameter of the core to be 1.545 inches (39.243 mm) and the weight of the core to be 36.5 grams. This weight and diameter results in a specific gravity of 1.154 (i.e., 36.5 grams/31.642 cm³). Thus, the present specification discloses values within the claimed range. The specification is not required to explicitly disclose each and every specific gravity in the claimed range so long as the specific gravity of the core may be achieved without undue experimentation.

It is well within the capabilities of an artisan in this field to produce a core having a particular specific gravity. The prior art includes a wide array of

teachings for forming cores having various specific gravities. Strategies for increasing or decreasing the specific gravity are well known. Further, there exists a high degree of predictability in achieving a desired specific gravity. Applying the *Wands* factors, it is clear that the amount of experimentation necessary to provide a core having a specific gravity of 1.4 or less is not undue.

c. Intermediate Layer Thickness of at Least 1 mm

Support for the intermediate layer having a thickness of at least 1 mm can be found on page 36, lines 5-6 of the present application, where the intermediate or inner cover layer is about 0.100 inches (2.54 mm) to about 0.010 inches (0.254 mm). In the examples, an intermediate or inner cover layer is disclosed having a thickness of 1.7 mm (page 39, line 12).

Applying the *Wands* factors, it is submitted that the amount of experimentation necessary to form an intermediate layer thickness of at least 1 mm is not undue. Again, the state of the prior art is such that numerous teachings exist as to forming intermediate layers of varying thickness. Moreover, one skilled in this field of art would have sufficient expertise to produce such an intermediate layer. There exists a high degree of predictability in forming an intermediate layer with a particular thickness. Clearly, the amount of experimentation necessary to achieve a desired thickness is not undue.

Appellant notes that U.S. Patent 5,553,852 to Higuchi et al., from which the claims of the present application are derived, also claims an intermediate layer having a thickness of at least 1 mm but is not inclusive of thicknesses above a particular value. Specifically, the '852 patent discloses at col. 3, lines 29-30, that the intermediate layer thickness is preferably 1.5 to 3.5 mm. Following the Examiner's logic with respect to the claims at issue, the '852 patent specification does not disclose thicknesses above 3.5 mm, but yet that patent claims thicknesses that include thicknesses greater than 3.5 mm (claiming a thickness of at least 1 mm). The claims of the '852 patent, however, were still allowed. **It appears that the Office is applying a different standard to the present application.**

In view of the foregoing, Appellant respectfully submits that the present specification sufficiently enables the claimed intermediate layer thickness.

d. Intermediate Layer Having a Specific Gravity Upper Limit of 1.2

The Examiner contended that the upper limit of the specific gravity of the intermediate layer was not sufficiently enabled in the originally filed application.

Appellant respectfully submits that support for the intermediate layer having a specific gravity of less than 1.2 can be found in Sample E of Table 7 on pages 41-42. Sample E is a 50/50 blend of Iotek[®] 7030 and Iotek[®] 8000 which have specific gravities of 0.96 and 0.954, respectively (see pp. 28 and 29). Similarly, while the data on Iotek[®] 959 and Iotek[®] 960 shown on page 15 does not specifically list the specific gravity, previously submitted Exhibit B¹, shows the specific gravities of ionomers as being 0.920 to 0.990, which is less than the specific gravity of 1.2 as recited in claim 1. Furthermore, the specific gravity of the intermediate or inner cover layer (i.e., 0.920 to 0.990) is lower than the specific gravity of the core.

Appellant respectfully submits that the specification does not have to disclose each and every specific gravity in the claimed range so long as the claimed specific gravity may be achieved without undue experimentation. Applying the *Wands* factors, it is submitted that the degree of experimentation necessary to produce an intermediate layer having a specific gravity of 1.2 or less, is not undue. The state of the art is such that numerous teachings exist that would enable one to produce an intermediate layer having a particular specific gravity. Such an endeavor would be well within the capabilities of a person skilled in this field of art. Moreover, the level of predictability in producing an intermediate layer having a particular specific gravity is high. Thus, the amount of experimentation necessary to produce an intermediate layer with this specific gravity is not undue.

Appellant further notes that the '852 patent, although stating an upper limit of 1.2 for an intermediate layer, fails to show or demonstrate an intermediate layer having a specific gravity of greater than 0.95. Specifically, the intermediate layers of examples 1-6 in Table 2 of the '852 patent (col. 5-6) have specific gravities of 0.95. By the Examiner's arguments, the '852 patent would fail to address specific gravities between 1.2 and 0.95. The '852 patent fails to show, in examples or otherwise, intermediate layers exhibiting every specific gravity between 1.2 and 0.95. The claims of the '852 patent, however, were still allowed. Similarly, Appellant submits that the specific gravities of the intermediate layer found in sample E of Table 7 on pages 41-42 are less than the recited specific gravity of 1.2 and, although

¹ Exhibit B was submitted with an Appeal Brief filed February 7, 2001 in this application.

not demonstrative of every specific gravity between 0.99 and 1.2, convey to a person skilled in the art that the claimed specific gravity of the intermediate layer is less than 1.2. The present specification sufficiently enables the claimed specific gravities for the intermediate layer being less than 1.2.

e. Intermediate Layer Hardness of at Least 85 Shore C

With regard to the hardness of the intermediate layer, the Examiner contended that the originally filed disclosure fails to enable a lower hardness value of 85.

Appellant respectfully submits that support for the intermediate layer having a hardness of at least 85 on a JIS C (Shore C) scale can be found on page 42, line 7, which shows a Shore C hardness of 96. Also, on page 42, line 7, a 50/50 blend of Iotek 959/960 has a Shore C hardness of 98.

Appellant further submits that, even though the Shore C hardness is not exactly described, the present specification sufficiently enables an intermediate layer having a hardness of at least 85 on a JIS C (Shore C), as set forth in claim 1.

Applying the *Wands* factors, it is clear that the amount of experimentation necessary to achieve the claimed hardness is not undue. The prior art contains numerous teachings as to how to vary the hardness of an intermediate layer. Clearly, this would be well within the capabilities of one skilled in this field of art. Moreover, there is a relatively high degree of predictability in achieving a certain hardness when forming an intermediate layer. The amount of experimentation involved in producing a layer with a specified hardness is not undue.

f. Cover Thickness of up to 3 mm

The cover thickness is disclosed on page 36, lines 7-8, where the outer cover is 0.254 to 1.27 mm. Although the specification does not explicitly disclose the claimed cover thickness, the present specification sufficiently enables the claimed cover thickness.

Again, with reference to the *Wands* factors, it is clear that the amount of experimentation necessary to produce a cover having a particular thickness is not undue. A person having skill in this field of art would be capable of producing a cover having a desired thickness. This is evident from the extensive teachings in the prior art in which a wide array of covers, each with different thicknesses, are produced. Furthermore, there is a high degree of predictability when forming a cover

having a particular thickness. The amount of experimentation involved in producing a layer with a particular thickness is not undue.

For at least these reasons, claim 1 is proper and meets the enablement requirements of § 112.

2. Claim 3

The Examiner rejected claim 3 under 35 U.S.C. § 112, first paragraph, as not being sufficiently enabled by the specification.

Regarding the cover having a hardness of 50 to 85 on the JIS C scale, the present specification discloses various ionomers that form the cover within the claimed JIS C range. Although the present specification does not explicitly disclose JIS C ranges for the cover, the present specification does disclose Shore D hardness values for particular ionomers that can be used to form the cover. Previously submitted Exhibit C² shows a durometer scale comparison chart between Shore D and Shore C scales.³ Although the chart is not used for conversion purposes, the chart does give one skilled in the art a reasonable basis for determining whether the ionomers disclosed in the present specification for the cover fall within the JIS C range recited in claim 3.

Page 15, line 15, discloses that the Iotek[®] 960 ionomer has a Shore D hardness of 57. Table 1 on page 18 discloses that the various Primacor[®] ionomers have a Shore D hardness between 40 and 50. Table 3 on page 27 discloses that Surlyn[®] 8528 has a Shore D hardness of 60. Table 4 on page 28 discloses that Iotek[®] 4000 and Iotek[®] 4010 have a Shore D of 55; Iotek[®] 8020 has a Shore D of 58; and Iotek[®] 8030 has a Shore D of 59. Finally, Table 4 on page 29 discloses that Iotek[®] 7010 has a Shore D of 57; Iotek[®] 7020 has a Shore D of 55; and Iotek[®] 7030 has a Shore D of 55. Based upon the comparison chart in the noted Exhibit C, it would be clear to one skilled in the art that the present specification discloses ionomers that may be used to form the cover that have a hardness in the claimed range.

Therefore, it is clear from the specification that it sufficiently enables the recited JIS C range of 50-85 for the cover.

² Exhibit C was previously submitted with an Appeal Brief filed February 7, 2001.

³ Please note that Shore C values are identical to JIS C values.

With regard to the claimed features of a center core having a hardness of 45 to 80 on the JIS C scale, Appellant respectfully submits that such range is inherent from the specification. Clearly, one skilled in the art would recognize that all of the preferred materials that make up the core in the present application are within such a range.

Referring to the *Wands* factors, it is readily apparent that the amount of experimentation necessary to produce cores and covers having the claimed hardness values is not undue. The state of the prior art is such that one could readily formulate blends of materials to produce a core and/or cover having the desired hardness. Moreover, there is a high degree of predictability in achieving such hardnesses. Clearly, a person having ordinary skill in this field of art would be able to produce the noted covers and cores having desired hardnesses. That is, the amount of experimentation involved in producing the cores and covers having the noted hardnesses is not undue.

For at least these reasons, claim 3 is proper and is sufficiently enabled by the present specification.

3. Claim 5

The Examiner rejected claim 5 under 35 U.S.C. § 112, first paragraph, as containing new subject matter not sufficiently enabled by the specification of the present application.

The diameter of the center core in the range of 29 to 37 mm is found in the specification when the maximum intermediate or inner cover layer and outer cover thickness are used so that the core of a 1.68 inch ball is 1.38 inches (i.e., 35.052 mm). Appellant duly notes that such a core diameter is preferred. However, it would be clear to one skilled in the art that the core diameter may change depending on the diameter of the ball. Specifically, as was previously explained in the discussion of how core diameters as recited in claim 1 are sufficiently enabled, the same rationale applies here. The amount of experimentation necessary to achieve this is not undue. The present specification sufficiently enables the claimed subject matter of the center core diameter having a range of 29 to 37 mm.

For at least these reasons, claim 5 is proper.

4. Claim 6

The Examiner rejected claim 6 as not being enabled by the original disclosure. Specifically, the Examiner contended:

In claim 6, neither the upper or lower limit of the claimed difference in specific gravity (.5-.1) was disclosed in the originally filed specification. By Applicant's admission the limits of the difference disclosed were (.234-.164).

Office Action, November 4, 2002.

Appellant respectfully submits that its earlier Response is not an admission that limits the difference in specific gravity to the range of 0.234 to 0.164. Rather, the range of 0.234 to 0.164 listed in the Response provides evidence of differences in specific gravities that fall within the claimed range of 0.5 to 0.1. Appellant notes, as it previously did, that the difference (of 0.234 to 0.164) is *preferred* and clearly falls with the claimed range (of 0.5 to 0.1).

Appellant further submits that the specification sufficiently enables the claimed range for the difference in specific gravity. It was previously explained in the discussion of claim 1, that the present specification sufficiently enables the production of a center core and an intermediate layer to have a certain specific gravity differential. The amount of experimentation necessary to achieve this is not undue. Consequently claim 6 is proper.

5. Claim 7

The Examiner rejected claim 7, which recites the range for the specific gravity of the intermediate layer as 0.9 to 1.0, under 35 U.S.C. § 112, paragraph one for alleged lack of enablement.

Appellant submits that support for the specific gravity of the intermediate layer can be found in Sample E of Table 7, where a 50/50 blend of Iotek® 7030/8000 have specific gravities of 0.96 and 0.954, respectively (see pp. 28 and 29), which are within the parameters of claim 7. The above values are preferred values and as such, the claimed range is broader to also include less preferable ranges. Additionally, while the data on Iotek® 959 and Iotek® 960 shown on page 15 does not specifically list the specific gravity, the previously noted Exhibit B shows the specific gravities of ionomers as being 0.920 to 0.990, which is clearly within the range of 0.9 and 1.0 set forth in claim 7.

Appellant, therefore, respectfully submits that the present specification sufficiently enables the claimed specific gravity in the range of 0.9 to 1.0. As was

previously explained with regard to claim 1, the amount of experimentation necessary to achieve the claimed specific gravities is not undue. Thus, claim 7 is proper.

6. Claim 8

The Examiner rejected claim 8 under 35 U.S.C. § 112, paragraph one, stating that "neither the upper limit (100) nor the lower limit (85) [of the hardness of the intermediate layer] were disclosed..."

Appellant respectfully submits that the hardness of the intermediate layer can be found in Table 7, pages 41-42, wherein the intermediate cover preferably has a Shore C hardness of 96 to 98, which clearly falls within the claimed range of 85 to 100. Again, although the specification does not describe the invention of claim 8 exactly as claimed, the present specification reasonably conveys to one skilled in the art the claimed range. As was previously explained with regard to claim 1, the amount of experimentation necessary to achieve the claimed hardness values is not undue. Thus, claim 8 is proper and is sufficiently enabled by the present specification.

In view of the foregoing, Appellant submits that the specification is sufficiently enabling and provides for each of the elements recited in claims 1-8. Accordingly, it is respectfully requested that the Examiner's rejection be reversed.

C. Rejection of Claims 1-8 for Lack of Enablement Must Also Be Reversed for Failure to Properly Reject Those Claims

In addition to the substantive reasons previously set forth as to why the present specification is sufficiently enabling, the present rejection must as a matter of law be reversed for failure to properly reject the claims. As previously explained, the PTO bears the initial burden of setting forth a reasonable basis as to why the claims are not enabled. In making such a rejection, the PTO must supply specific technical reasons why one skilled in the art could not supply the missing information without undue experimentation. In fact, courts have explained that in examining a patent application, the PTO is required to assume that the specification complies with the enablement provision of Section 112 unless it has evidence or reasoning to suggest otherwise. See *Gould v. Mossinghoff*, 229 USPQ 1, 13-14 (D. D.C. 1985) and *Gould v. Quigg*, 3 USPQ2d 1302 (Fed. Cir. 1987).

The previous Office Action is silent as to this and fails to identify any evidence or reasons why the present specification does not comply with § 112. It is not enough to merely assert various allegations that the specification is non-enabling. Technical reasons must be given as to why one skilled in the art could not supply the allegedly missing information.

Such reasons have not been presented in the previous Action. Therefore, the rejection under § 112 for alleged lack of enablement must, as a matter of law, be reversed.

II. Rejection of Claims 1-8 Under § 102 Based Upon EP '043 to Higuchi Must Be Reversed

In support of this ground of rejection, the Examiner contended:

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Higuchi '043.

Applicant's arguments filed 9/6/02 have been fully considered but they are not persuasive.

Regarding the claim 1 rejection applicant is claiming a range from 29 mm to infinity. The lowest value the disclosure recites is 39.243 mm. The 39.243 mm value recited by the applicant is approximately 30% larger than the lower end of the claimed range and nothing in the specification indicates that applicant intended to include anything below 39.243 mm as opposed to other possibilities.

The same logic applies to the range of the specific gravity of the core between 1.4 and 1.155. Applicant has simply given no indication that specific gravities in this range were intended to be part of his invention among other possibilities.

Regarding the lower limit of the intermediate thickness, applicant is correct in that this was part of the original disclosure. However, applicant's disclosed ball is not inclusive of thicknesses above 2.54 mm whereas that being claimed is.

Concerning the specific gravity of the intermediate layer, the disclosure is not inclusive of the range between 1.2 and .97 as is now being claimed.

With regard to the hardness of the intermediate layer, the originally disclosure is not inclusive of the range between 85 and 95.

Concerning the applicant's outer cover thickness, the largest cover thickness disclosed was 1.27 mm which is not even half of the now claimed 3 mm.

Regarding claim 3 arguments, the applicant has freely admitted that there would have been possibilities other than that which he now claims. Moreover, how would one know that applicant intended the entire range as opposed to only an upper end of the range?

Regarding the claim 5 arguments, applicant has provided no evidence that a lower limit of 29 mm was disclosed to the exclusion of other possibilities.

Regarding claim 6, applicant has still provided no evidence that values above .234 or below .164 were intended as is now claimed. Likewise with regard to claim 7 and 8, applicant has still provided no evidence that values as high as the upper end of the

claimed ranges, or as low as the lower end of the claimed ranges were intended as is claimed. Thus, values such as these represent are not enabled. The values now being claimed are only one possibility among an infinite number that applicant might have intended.

In none of these instances could applicant's claimed subject matter be divined by routine experimentation for the routineer would simply have no way of knowing in what direction to experiment given that there is no suggestion of values outside those presented in the disclosure. Applicant's interpretation of the "undue experimentation" test is akin to stating that the ordinarily skilled artisan would, by routine experimentation without further evidence, determine that "2" included "3" but did not include "1". Such an interpretation is clearly illogical on its face.

An interference cannot be initiated since a prerequisite for interference under 37 CFR 1.606 is that the claim be patentable to the applicant subject to a judgment in the interference.

Pages 4-6 of the November 4, 2002 Action.

In support of this rejection under § 102(b), the Examiner cited EP 633,043 to Higuchi et al. The EP '043 document was published on January 11, 1995 and claims priority upon JP 193065/93 filed on July 8, 1993.

The present application is a divisional of application serial number 08/714,661 filed on September 16, 1996 now U.S. Patent 6,368,237 which, in turn, is a divisional of application serial number 08/562,540 filed on November 20, 1995, which is a continuation of application serial number 08/070,510 filed on June 1, 1993. Consequently, the effective filing date to which Appellant is entitled for the subject matter of the pending claims is June 1, 1993.

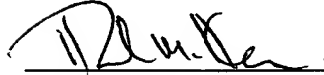
Since Appellant's effective filing date is earlier than the effective filing date of the Higuchi et al. EP '043 document, that document is not prior art and the cited claims are patentable over the cited document.

III. Conclusion

In view of the foregoing, it is respectfully submitted that all claims 1-8 be allowed. As previously explained, the rejection for lack of enablement must be reversed. And, the rejection for anticipation must also be reversed since the cited document is not prior art to the present application.

Respectfully Submitted,

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IX. APPENDIX OF CLAIMS (37 C.F.R. § 1.192(c)(a))

1. A three piece solid golf ball comprising:

a center core, an intermediate layer, and a cover enclosing the core through the intermediate layer;

said center core having a diameter of at least 29 mm (1.1417 inches) and a specific gravity of less than 1.4;

said intermediate layer having a thickness of at least 1 mm (0.03937 inches), a specific gravity of less than 1.2, and a hardness of at least 85 on JIS C (Shore C) scale, the specific gravity of said intermediate layer being lower than the specific gravity of said center core; and

said cover having a thickness of 1 to 3 mm (0.03937 to 0.1182 inches) and being softer than said intermediate layer.

2. The golf ball of claim 1 wherein said intermediate layer is formed of a high repulsion ionomer resin base composition.

3. The golf ball of claim 1 wherein said center core has a hardness of 45 to 80 on JIS C scale and said cover has a hardness of 50 to 85 on JIS C scale.

4. The golf ball of claim 1 wherein said center core is comprised of a polybutadiene base rubber composition.

5. The golf ball of claim 1 wherein the diameter of said center core is in the range of 29-37 mm.

6. The golf ball of claim 1 wherein a difference in the specific gravity between the center core and the intermediate layer is in the range of 0.1 to 0.5.

7. The golf ball of claim 1 wherein the specific gravity of said intermediate layer is in the range of 0.9 to 1.0.

8. The golf ball of claim 1 wherein the hardness of said intermediate layer is in the range of 85-100 on JIS C.